Infantry Brigade Combat Team Capabilities Assessment and Review, Sep 2013

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Introduction

The Infantry Brigade Combat Team (IBCT) is an expeditionary, combined arms formation optimized for dismounted operations in complex terrain (urban, mountainous, forest, subterranean, jungle). The IBCT is the Army's most numerous, tactically versatile, strategically deployable, and adaptive combat formation. It can conduct entry operations by ground, air-land, and air assault. Airborne IBCTs can conduct entry operations by parachute assault. IBCTs can be assigned missions such as reducing fortified areas, infiltrating and seizing objectives in the enemy's rear, eliminating enemy force remnants in restricted terrain, securing key facilities and activities, and conducting stability tasks in the wake of maneuvering forces. Ultimately, the IBCT's ability to gain and maintain dismounted tactical overmatch in complex terrain is the distinguishing characteristic that separates it from other functional brigades and brigade combat teams (BCT). Its strategic deployability and expeditionary mindset make it the combat formation most suitable for short-notice, worldwide deployment in support of a broad range of contingencies.

By design, IBCTs are easily configured for area defense and as the fixing force component of a mobile defense. However, the formation is optimized for the offense against conventional, hybrid and irregular threats in severely restrictive terrain. The design allows it to defeat the enemy in complex terrain defense, urban operations, security missions and stability tasks.

The ever expanding mission profile and diverse operating environment of the IBCT drive the requirement for a highly-versatile and combat effective formation. The IBCT must be capable of rapid transition across the full range of unified land operations in order to seize, retain, and exploit the initiative. IBCTs maneuver to gain and maintain a position of relative advantage in sustained operations and create conditions for favorable conflict resolution. The formation must adapt to the unique conditions of each conflict while remaining fully integrated with the efforts of Joint, intergovernmental, and multinational partners. While the IBCT retains proficiency in traditional core competencies, it must expand its capabilities to effectively execute unified land operations in future conflicts.

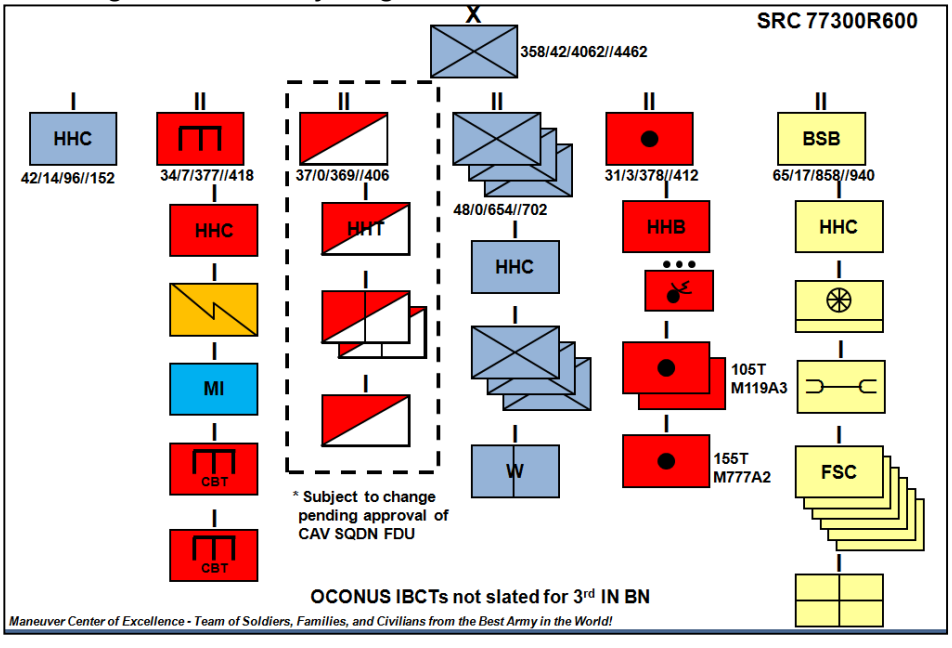
The inherent limitations of the formation will become critical deficiencies if not adequately addressed through doctrine, organization, training, materiel, leader development, personnel and facilities (DOTMLPF) improvements. The force structure must evolve to combat the three-dimensional hybrid threat associated with modern warfare. The IBCT must achieve sufficient mobility and employ the necessary firepower to achieve overmatch in all environments against a technologically advanced adversary. It must integrate an effective mission command architecture and modernize sustainment systems to retain freedom of movement and action at the end of extended and contested lines of operation.

Operational Depth and Tempo

The IBCT 2020 force structure provides greater operational depth and tempo. The re-installment of a third infantry battalion greatly expands maneuver capacity, while the addition of a 155mm howitzer battery within the field artillery battalion enables organic long range precision fires capabilities for the formation. The 2020 force design also

replaces the brigade special troops battalion (BSTB) with a brigade engineer battalion (BEB), increasing maneuverability and force protection with the addition of a second engineer company.

Figure 1. Infantry Brigade Combat Team Force Structure



In order to optimize combat effectiveness, further organizational improvements to the formation must be applied, most notably within the Cavalry Squadron. The IBCT's ability to execute effective air-ground combined arms reconnaissance and security (R&S) on the modern battlefield is critical. Currently, the IBCT lacks the capability to perform this mission in depth. Recommended changes to the Cavalry Squadron force structure will expand R&S capabilities by creating two cavalry troops capable of executing reconnaissance both mounted and dismounted. A third cavalry troop is necessary to effectively support the brigade's third infantry battalion. Cavalry troops also require a Light Reconnaissance Vehicle platform capable of supporting six-person cavalry sections with sufficient mobility, protection and firepower. Further, institutional training initiatives such as Advanced Situational Awareness Training and materiel programs such as Close Access Target Reconnaissance will enhance situational understanding within the IBCT.

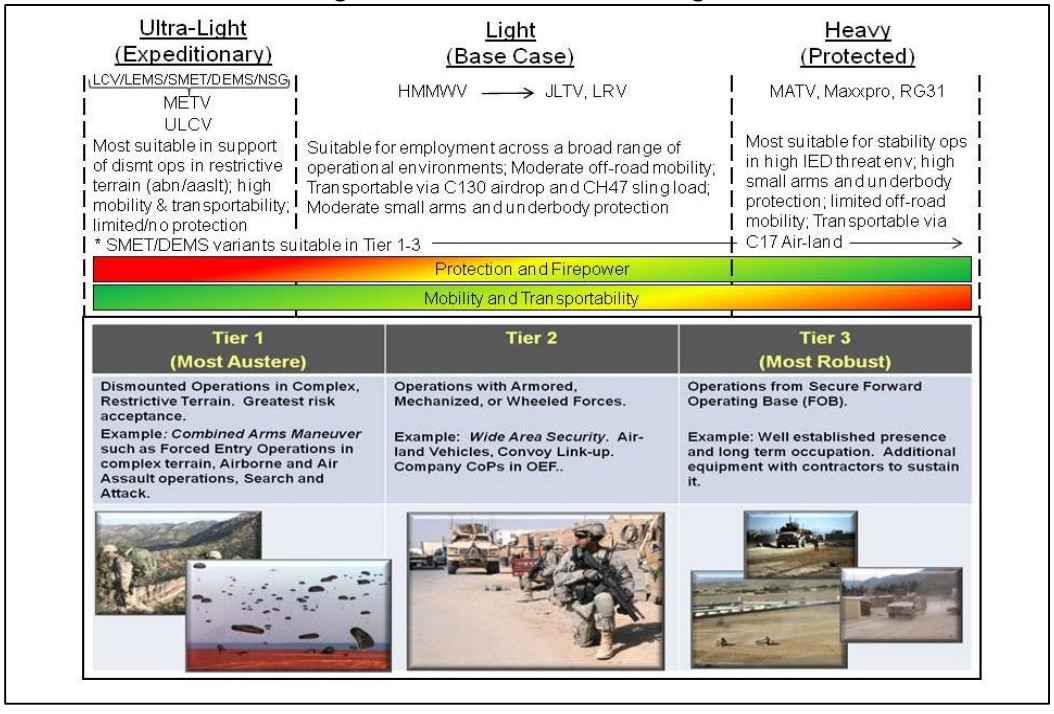
Tactical Mobility and Agility

The IBCT may be augmented with additional assets when required to satisfy mission, enemy, time, terrain and weather, troops and support available, time available and civil considerations (METT-TC) mission variables. The formation can adapt quickly to a range of transportation assets. The formation configures itself based on mission requirements. The IBCT sacrificed organic Infantry troop transport as part of Army 2020. Thus, the IBCT remains heavily reliant on echelons above brigade (EAB) to provide battlefield troop transportation. While the divisionally aligned combat sustainment support battalion (CSSB) design mitigates this capability gap through the employment of a composite truck company (CTC), in many scenarios the CTC is insufficient to provide adequate mobility to IBCT maneuver forces.

METT-TC conditions often require the IBCT to rapidly motorize for immediate troop displacement and tactical mobility over wide areas. An uncertain future operating environment drives the requirement for a scalable mix of vehicle platforms to achieve this capability. In a highly developed threat environment, particularly while conducting security and stability operations, IBCTs require a vehicle fleet with robust protection capabilities such as Mine Resistant Ambush Protected (MRAP) platforms. MRAPs enable the IBCT to conduct dispersed operations over wide areas when the threat of improvised explosive devices (IEDs) exists. In Iraq and Afghanistan, IBCTs have adapted operations to conduct mounted security missions among populations. Future conflicts will likely observe the early introduction of IEDs. To counter this threat, the Army is installing six IBCT sets of existing MRAP vehicles into Army Prepositioned Stock (APS) at strategic locations worldwide. However, these platforms are not suitable for all operational contingencies. The robust capabilities required to deliver and sustain the MRAP vehicle fleet will not exist or will be unavailable to support initial or early entry forces.

IBCTs assigned to conduct initial and early entry operations must be equipped with the ability to move tactical distances. In such cases, IBCTs conducting high intensity operations require sufficient light tactical vehicles to simultaneously move three infantry battalions across the operating area in order to rapidly seize initiative and capitalize gains. This urgent need drives the requirement to develop the Ultra-Light Combat Vehicle (ULCV) and Modular Expeditionary Tactical Vehicle (METV). These highly mobile platforms will be optimized for Low Velocity Airdrop (LVAD) and rotary wing transportability and will be available to IBCTs for employment in expeditionary contingencies.

Figure 2. IBCT Vehicle Integration



Regardless of vehicle transportation capacity, the IBCT's core capability remains the ability to operate effectively as a dismounted force in complex terrain. Yet, the physical burden imposed on Soldiers and leaders by new technologies and equipment has reached critical levels. As a result, the ability of the IBCT to maneuver in severely restrictive terrain has considerably diminished. While the weight of many organic systems has decreased over time, these improvements are often offset by the addition of new capabilities that must be carried. Materiel developments must emphasize the reduction of Soldier Load as a critical priority. Achieving current capabilities at reduced weight is preferable to increasing capability at increased weight in many cases. Additionally, opportunities to offload Soldier equipment through Squad Multi-purpose Equipment Transport and Precision Aerial Delivery capabilities must be pursued and resourced.

The mounted and dismounted mobility of IBCTs is further hindered by the proliferation of IEDs on the battlefield. This capability will persist in modern conflicts and remain a high-risk threat to the IBCT for the foreseeable future. The formation must assure the mobility of maneuver forces through effective and reliable IED threat detection from distances beyond blast effects. The integration of detection technologies such as the Common Robotic System – Individual (CRS-I) as well as the Husky Mounted Detection System will be important. However, in the current operational environment, the individual Soldier remains the most effective detection asset; counter-IED training and leader development initiatives are critical.

Firepower

The expeditionary design of the IBCT inherently limits the lethal capabilities of the formation. As a whole, the IBCT lacks sufficient firepower to achieve overmatch against all adversaries in all environments. Small dismounted units in the IBCT have limited organic capability to provide immediate, overwhelming, precision direct-fire lethality in complex and restricted terrain. Ongoing lethality developments such as the Counter Defilade Target Engagement system, Individual Assault Munition and Lightweight Miniature Aerial Munition System will enhance small unit effectiveness. However, training remains the most critical element to improving dismounted lethality. Specifically, machine gun proficiency has atrophied. The development of an institutional machine gun leader course is required to regain this expertise.

The limitations of indirect fire capabilities for IBCTs are notable as well. While the introduction of a 155mm howitzer battery into the field artillery battalion enables long range precision fires, The IBCT must expand the organic capability to provide timely area and precision indirect fires at extended ranges in all conditions. The Army must continue investments in Excalibur and Precision Guidance Kit programs to sustain improvements. Within the Infantry Battalions, the 120mm High Explosive Guided Mortar is essential to achieving precision capabilities. Additionally, the Joint Effects Targeting System will modernize handheld target location devices to facilitate the employment of precision munitions.

Firepower limitations are most critical during initial and early entry operations as IBCTs operate without the support of heavy armored forces. For these missions, IBCTs require the support of a light-tank with the mobility, protection and firepower necessary

o enable combined arms maneuver against projected threats which will likely emulate the adaptations of recent opponents while capitalizing on emerging technologies. IBCTs require protected, long range, precision direct fire capability to defeat enemy prepared positions, bunkers and armor threats in order to ensure freedom of movement and action during offensive operations or defeat attacking enemy during defensive operations. The MPF combat vehicle will be capable of LVAD to support parachute assault operations in initial entry.

Mission Command

Enhanced tactical mobility and firepower capabilities will intensify the requirement for IBCTs to integrate mission command capabilities at the tactical edge of the modern battlefield. This requires horizontal and vertical data connectivity in the dismounted environment. The integration of Nett Warrior at the squad leader level and above will provide tactical leaders with digital common operating picture, intelligence tools, reach-back to supporting elements and other capabilities while operating away from command posts and vehicles.

In order to integrate the full breadth of mission command technologies, it is critical to develop effective network solutions that enable command and control and integrate organic, direct support and joint assets. These solutions must provide sufficient capability without becoming excessively complex or requiring complicated procedures to achieve lateral communications with adjacent units. The current network architecture requires an over-reliance on field support representatives due to high complexity; this is unacceptable. The network must also provide sufficient mobility and redundancy while retaining effective voice communication capabilities at all levels. Incremental Capability Set fielding to IBCTs will enable mission command technologies in stationary command posts as well as on-the-move in dismounted and mounted environments. However, achieving interoperability among current capabilities is more important than improving the capabilities of individual systems.

Sustainment and Protection

Expanding technological capabilities impose greater resource demands on the IBCT, which must retain sufficient sustainment capabilities to retain freedom of movement and action at the end of extended and contested lines of operation. The IBCT is heavily reliant on EAB assets for sustainment support. Specifically, the 2020 force design reduces organic capacity for petroleum storage and water purification. Updates to the CSSB structure will mitigate sustainment shortfalls, but systems will continue to be strained across all classes of supply.

Most critically, the continued proliferation of power consuming systems at the small unit level has created an unsustainable burden from a logistics and Soldier load perspective. Operational energy at the small unit level is crucial to combat effectiveness at all echelons. The Army must address power gaps from all angles, to include training, education, policy and materiel modernization. The Small Unit Power initiative will significantly improve power sustainment capabilities for dismounted units in all environments. It will also have a positive impact on Soldier load by reducing the number and types of batteries required to be carried.

The expansion of enemy technological capabilities will continue as well. Specifically, enemy unmanned aircraft threats are an emerging challenge the IBCT will face from potential adversaries in the foreseeable future. IBCTs require the capability to identify, track and defeat threat UAS at the tactical level. The integration of DOTMLPF solutions into the current force will be essential to combat this threat.

Conclusion

The Army's decision to field fewer, more capable brigade combat teams mitigates many challenges experienced under the two battalion modular brigade combat team force structure. The Maneuver Center of Excellence will continue to develop IBCT capabilities across a broad front as a means of increasing the formation's contribution to the Joint Force. Several notable materiel improvements are actively under development that will further mitigate Soldier risk, to include the 120mm High Explosive Guided Mortar (HEGM), Small Unit Power (SUP), Precision Sniper Rifle (PSR), and Counter Defilade Target Engagement (CDTE) which are currently progressing through the formal acquisition process. The Army Network continues maturation. Basis of issue was decreased for both the Rifleman's Radio and Nett Warrior system. The Cavalry Squadron force design effort continues; when fully realized, the Cavalry Squadron will field two highly capable troops able to conduct reconnaissance and security missions either mounted or dismounted. In coordination with XVIII Airborne Corps and the 82nd Airborne Division three distinct efforts continue development: Enhanced Tactical Mobility, Mobile Protected Firepower, and the Light Reconnaissance Vehicle. These three efforts aim to increase Airborne IBCT capabilities during forced and early entry operations.

The IBCT is a very capable combat formation; it can become even better with the right investments across DOTMLPF. These investments become absolutely critical to mission success as manning within the IBCT decreases and as IBCT force structure is lost in the coming years. IBCTs retained in the force must be the most capable allowed under fiscal realities. The IBCT will remain the formation of choice for rapid strategic deployment supporting mission demands of the geographic Combatant Commands.

Major Rustin Jessup is an Infantry officer with 10 years of service. He led an Infantry rifle platoon and company in combat in Iraq and Afghanistan. Mr. Mark Koneda has served in the US Marine Corps and Army. He currently serves as a reserve intelligence officer in the US Navy. Both are modernization subject matter experts for the Infantry Brigade Combat Team, Maneuver Center of Excellence, Ft. Benning, GA.